San Luis Obispo Fringe Circulation Study

2004

Prepared by the County of San Luis Obispo
Department of Public Works

San Luis Obispo Fringe
Traffic Circulation Study

Prepared by the County of San Luis Obispo
Department of Public Works
Transportation Division and Omni – Means, LTD.

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PUBLIC WORKS DEPARTMENT

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Chapter 1
INTRODUCTION

This Traffic Circulation Study addresses the need for capacity related transportation improvements in the unincorporated area around the southerly fringe of the City of San Luis Obispo and impacts on the City's infrastructure through the buildout year of the existing General Plan. This report includes the costs and potential funding mechanisms for these improvements, including adopting a road impact fee and partnering with the City and their traffic impact fee program.

The San Luis Obispo Fringe is located south of the City of San Luis Obispo. The study area is within the boundary shown in Figure 1 which includes approximately 4,200 acres. The San Luis Obispo Fringe is currently zoned for agricultural, residential and industrial uses.

The objective of the technical analyses was to define future projected capacity demands and the transportation improvements necessary to accommodate them. A key element of the study was to determine the necessary capital improvement program and development impact fees to support the program. This is done per Government Code Section 66000 for exacting mitigation fees.

The focus of this Circulation Study is developed to identify and correct capacity deficiencies related to new development, as they are the only projects that road impact fee monies can be applied to (per Government Code section 66000). Other projects related to safety, bicycle, pedestrian, public transportation facilities and existing roadway geometric deficiencies must be funded by other sources.

As impact fee projects are developed the roadway will be developed to the current standard, incorporating bike paths as well as pedestrian paths where they are required by the governing plans.

There are two large projects which have forced the need for the overall study. They are the Avila Ranch project and Morabito/Burke project. The latter project has moved forward with conditions relating to fees although the Avila Ranch has yet to be approved.

All matters related to zoning, permitting of buildings and other planning issues are the purview of the Department of Planning and Building, and are covered by the General Plan. Matters pertaining to bicycle lanes are covered by the County Bikeways Plan. Matters relating to hiking and equestrian trials are covered by the proposed Parks and Recreation Element by the Parks Division of the General Services Department.

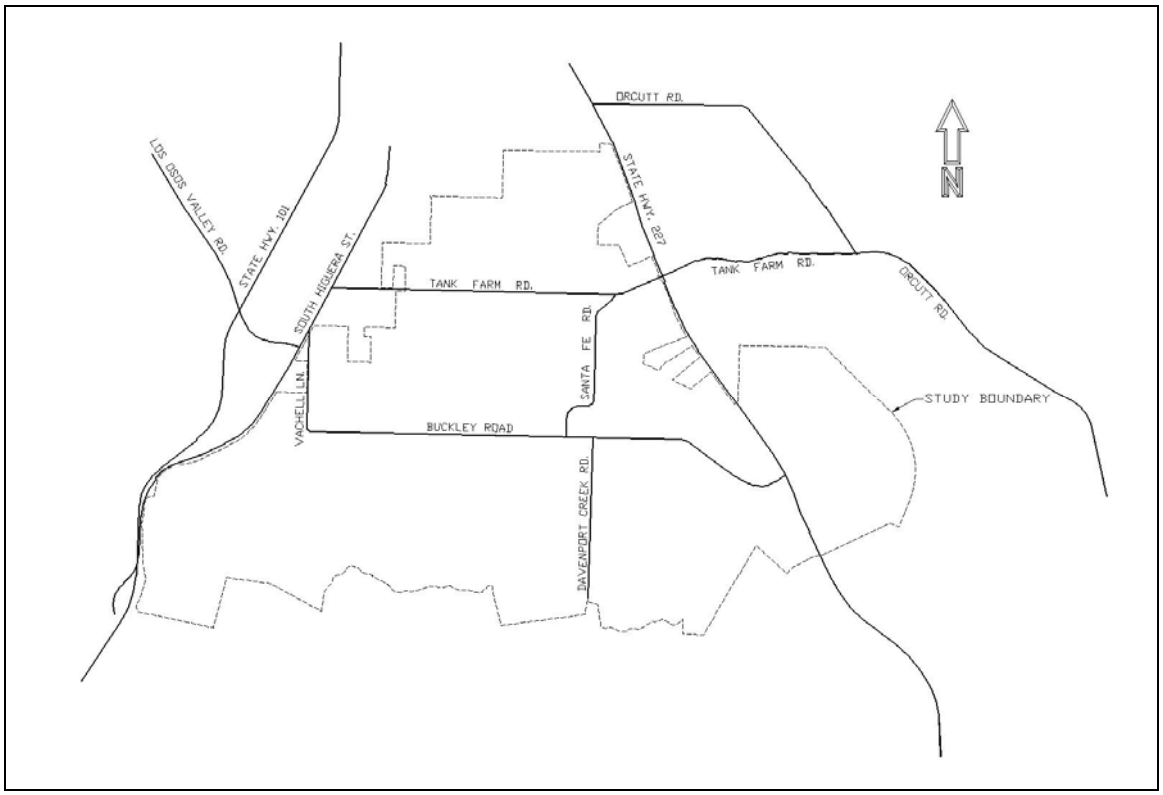

Figure 1 – San Luis Obispo Fringe Study Area

While updating these studies it is also necessary to assure a sufficient Road Impact Fee is being collected to cover the cost of improvements needed to support the buildout traffic. The report develops the cost estimates for the needed projects as well as the method to assign the fee. The result is the creation of the fee structure to create an appropriate fee for developed land uses.

Chapter 2
EXISTING CONDITIONS

This chapter reviews the existing conditions of the road system serving the community of San Luis Obispo Fringe. The topics include an inventory of the road system, review of functional classifications, analyses of traffic volumes and operations, and a discussion of the existing public transit service, bicycle, and pedestrian systems. Existing deficiencies will be identified and documented in this chapter as well.

FUNCTIONAL CLASSIFICATION

For transportation planning purposes, all major roadways are classified according to their traffic carrying requirements and access control. The San Luis Obispo County Public Works Department uses a system of four functional classes:

- **Principal Arterials** are designed to carry high traffic volumes with minimum interruptions.

- **Arterials** carry regional traffic at high speeds, but access is permitted at cross streets. Access to abutting parcels is controlled by permitting for driveways and encouragement of shared access.

- **Collectors** serve sub-regional traffic movement and provide local access to abutting properties. They also serve to collect and distribute traffic within neighborhoods and allow direct access to adjacent parcels.

- **Minor Roads** provide direct access to property, and through traffic is discouraged.

ROADWAY INVENTORY

Regional and local access for San Luis Obispo Fringe is provided by Highway 101, Highway 227 and Los Osos Valley Road. Figure 1 shows both regional roadways and local collectors, which are described below.

Highway 101 is a four lane freeway arterial that runs north/south through the study area. It is a limited access freeway that is accessed at two locations in the study area: Los Osos Valley Road and South Higuera Street. This highway provides regional access to the communities of San Luis Obispo, Arroyo Grande and Atascadero.

Highway 227 is a two lane arterial that runs north/south along the east edge of the study area. This route provides regional access to the communities of San Luis Obispo and Arroyo Grande.

Tank Farm Road is a two lane arterial that runs east/west through the study area. The route provides access to the east and west ends of San Luis Obispo.

Los Osos Valley Road is a three lane roadway at the eastern end; it widens out to 5 to 7 lanes in sections. The route provides access to western San Luis Obispo and Los Osos. There are no trucks allowed between Highway 101 and South Higuera Street.

South Higuera Street is a two lane arterial that provides access from the study area to US 101 and the City of San Luis Obispo. Within city limits the roadway is a five lane arterial.

Buckley Road is a two lane collector that runs east/west through the study area from Hwy 227 to Vachell Lane.

Santa Fe Road is a two lane minor road that runs from Tank Farm Road south to Buckley Road.

Vachell Lane is a two lane minor road that runs north/south from Buckley road to South Higuera Street.

Davenport Creek Road is a two lane minor road that runs from Buckley Road south to the Study boundary.

Jesperson Road is a two lane minor road that runs from Buckley Road south to the Study boundary.

INTERCHANGE INVENTORY

In the study area there are two interchanges that will require analysis to establish their operational capacity and the impact that local growth will have on them.

Hwy 101 at Los Osos Valley Road is a two lane overcrossing structure; the northbound ramps are a tight diamond while the southbound ramp is a loop. This interchange serves a large area of commercial and residential development, in addition this facility serves the majority of the rural lands surrounding San Luis Obispo Fringe.

Hwy 101 at Higuera Street Interchange is a two lane undercrossing structure with frontage roads accessing close to the ramps.

EXISTING TRAFFIC PATTERNS

Traffic counts were performed by the San Luis Obispo County Department of Public Works to determine existing traffic volumes and patterns. This information was used to calibrate the traffic model that would be used to forecast the buildout traffic conditions.

Traffic volume data for locations is presented in Figure 2.

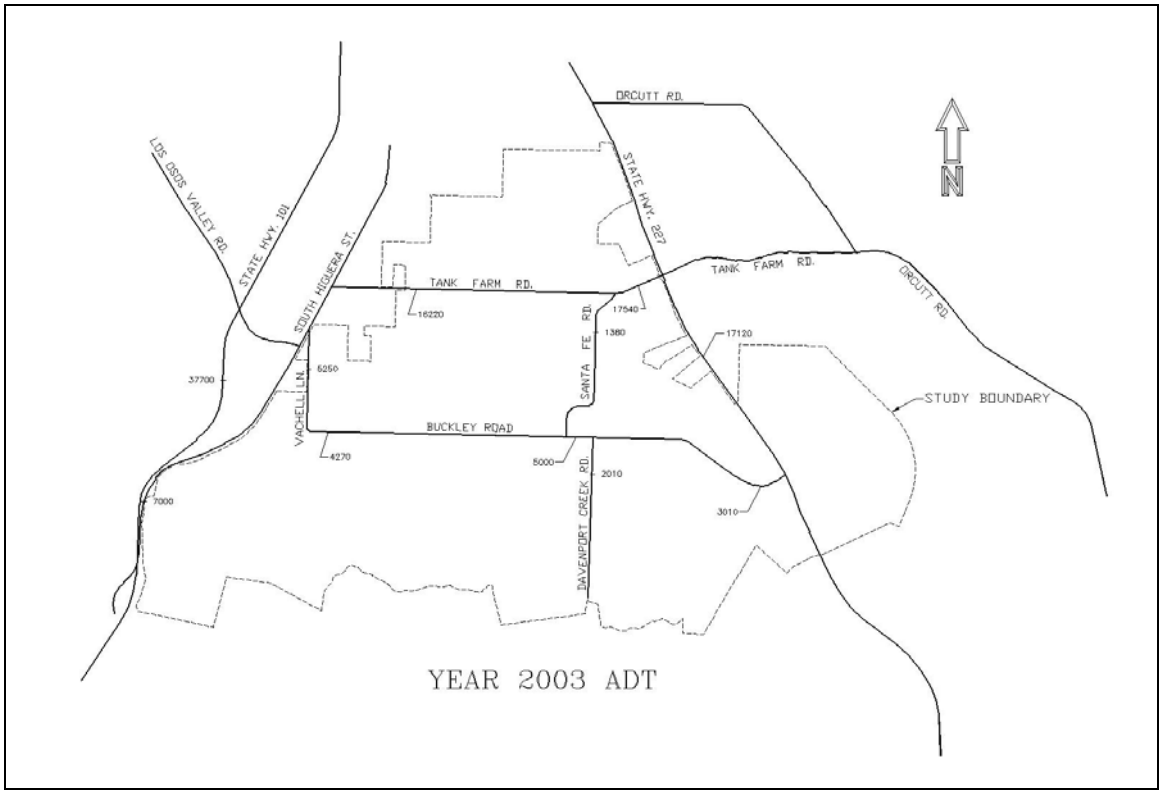

Figure 2: Current (2003) Average Daily Traffic (ADT)

THROUGH TRAFFIC

Traffic into and out of the San Luis Obispo Fringe area can be described by examining a cordon line that corresponds to the study area boundary. Trips which originate or terminate within the boundary (trip ends) can be determined by subtracting through traffic from the total cordon crossings.

The primary routes for through traffic in San Luis Obispo Fringe are Highway 101 and Highway 227.

TRAFFIC SERVICE LEVELS

The establishment of an acceptable level of service (LOS) for County Maintained Roads in San Luis Obispo Fringe is important for balancing future development with practical road improvements in the community. To evaluate improvements, current road LOS is compared to the estimated future LOS and associated capacities.

ROADWAY SEGMENT LEVEL OF SERVICE

The current County policy calls for LOS D or better on roadways in urban areas and LOS C for rural areas. In San Luis Obispo Fringe, commuters influence traffic flow more than recreational travelers causing the LOS to be evaluated based on a typical weekday afternoon peak hour.

Weekday peak hour LOS was calculated for several road segments using the methods of the Highway Capacity Manual for two-lane highways and urban arterials, as appropriate. The Highway Capacity Manual establishes service levels A through F based on several factors including existing traffic volumes and road conditions such as terrain, lane- and shoulder-widths, vehicle mix, and direction of vehicle flow. A brief description of each LOS criteria is provided below.

> Under **LOS A** conditions free flow exists. Each individual driver is virtually unaffected by the presence of others in the traffic stream.
>
> Under **LOS B** conditions stable traffic flow exists. The individual drivers have the freedom to select a desired speed, but encounter a slight decline in the freedom to maneuver.
>
> Under **LOS C** conditions stable and acceptable traffic flow exists, but speed and maneuverability are somewhat restricted due to higher traffic volumes. The individual driver will be significantly affected by the presence of others.
>
> Under **LOS D** conditions high density but stable flow will occur. The individual driver will experience a generally poor level of comfort and convenience. Small increases in traffic flow will cause operational problems and restricted driver maneuverability.
>
> Under **LOS E** conditions speeds are reduced to low, but relatively uniform value. The individual driver's ability to maneuver becomes extremely difficult with high frustration. The traffic volume on the road is near capacity.
>
> Under **LOS F** conditions forced or breakdown flow has occurred. The individual driver is stopped for long periods due to congestion.

Table 1 summarizes the estimated PM peak hour LOS at several locations for 2001 conditions. **Bold typeface** denotes roads that do not comply with the County policy.

Road			Year 2003 Volumes (p.m. peak)	Year 2003 LOS (p.m. peak)
Name	**From**	**To**		
Highway 101	Higuera Street	Northern Boundary	3770	C
Highway 227	**Tank Farm**	**Southern Boundary**	**1720**	**E**
Tank Farm Road	Long Street	Santa Fe Road	1620	D
Tank Farm Road	Santa Fe Road	Highway 227	1750	D
Higuera Street	Los Osos Valley Road	Southern Boundary	700	C
Buckley Road	Highway 227	Santa Fe Road	500	C
Buckley Road	Santa Fe Road	Vachell Lane	430	B
Santa Fe Road	Tank Farm Road	Buckley Road	140	A
Vachell Lane	Buckley Road	Higuera Street	525	C

Table 1- Existing Roadway Conditions

Intersection Level of Service

The analysis of intersection Levels of Service (LOS) is based on the delay experienced by drivers, and is calculated separately for each approach leg of an intersection. Table 2 summarizes the PM peak hour LOS at intersections of concern. **Bold typeface** denotes roads that do not comply with the County policy.

Intersection	Current LOS	Current Control
Highway 227 and Tank Farm Road	D	Signal
Highway 227 and Buckley Road	B	Signal
Tank Farm Road and Santa Fe Road	C	Stop
Buckley Road and Santa Fe Road	B	Stop
Buckley Road and Davenport Creek Road	B	Stop
Vachell Lane and Higuera Street	**F**	**Stop**

Table 2 - Existing Intersection Conditions

Los Osos Valley Road Interchange

The City of San Luis Obispo developed a Project Study Report (PSR) in 2003 to look at the ultimate improvements at this location. See the PSR for specific alternatives and detailed LOS information.

EXISTING DEFICIENCIES

An existing “capacity deficiency” is identified when a road or intersection within the study area falls below the County’s adopted Level of Service (LOS) standard. Correction of a capacity deficiency could involve improvement to the deficient facility itself, or to a parallel facility that can relieve excess traffic.

One reason that existing capacity deficiencies must be identified is because road impact fees can’t be used to improve existing geometric deficiencies unless they improve roadway capacity as well. In order for changes to these areas to be funded through the impact fee they must show an improvement to a capacity problem related to development.

Chapter 3
TRAVEL FORECASTS

Forecasts of future traffic volumes for San Luis Obispo Fringe were prepared to serve as the basis for the evaluation of capacity improvement needs. Forecasts were based on expected build out of vacant lots with current zoning regulations.

MODEL DESCRIPTION

The forecasting effort utilized a computer traffic model as a tool for forecasting future traffic patterns and volumes within the study area. Working through the City of SLO, we have added onto the City's existing traffic model. The integrated transportation planning software package called TransCad was the modeling software used to develop this model. The analysis was run first under present conditions as a calibration tool to verify the accuracy of the model. Then the calibrated model was used to create the build out model that was used for all future traffic forecasting.

The San Luis Obispo Fringe model was developed by the City of San Luis Obispo, as an extension of their existing model, and a copy of their report and specific model information can be found in Appendix C.

Below is a description of the basic modeling process that is used for all county circulation study models.

MODELING PROCESS

The traffic modeling process involves the following four general steps.

The **trip generation** step translates land use quantities into vehicle trip ends using trip generation rates established during the model calibration process. The trip generation rates used in this model are based on the Institute of Transportation Engineers (ITE, Seventh Edition) data where available. The various trip generation rates were calibrated to the observed traffic counts in the San Luis Obispo Fringe area as part of the overall model validation process.

The **trip distribution** step uses a standard transportation engineering formula to estimate how many travel trips will be generated from one zone to any other zone. This formula is called the "gravity model" because of the formula's similarity to the formulas for gravitational attraction. The trip distribution is based on the number of trip ends generated in each pair of zones and the distance and travel time between the two zones.

In the trip distribution step, it is necessary to estimate the types of travel which take place at the boundaries (or "gateways") of the study area. Specifically, the traffic at the gateways must be split into traffic that passes all the way through the study area versus traffic that has an origin or destination in the study area. Any vehicle at a gateway must be one of the following:

- A trip passing through the study area (external-external).
- Produced outside the study area and attracted to a point within the study area (external-internal).
- Produced within the study area and attracted to a point outside the study area (internal-external).

In the **traffic assignment** step, trips between zones are assigned to specific travel routes on the road network. The resulting traffic volumes are accumulated for each roadway link in the network until all trips are assigned.

Peak hour traffic volumes are assigned to the network using an "all-or-nothing" assignment, wherein all trips between any pair of zones are assigned to the route connecting them with the minimum travel time. This gives an indication of where travel demands for transportation facilities will be in the future, and how traffic would flow if all roads could be built large enough to serve the demand.

Transportation models often include an additional **Mode Choice** step to separate person trips that are transit passengers and auto passengers from the vehicle drivers. The San Luis Obispo Fringe area traffic model combines the trip generation and mode choice steps, so that all trip generation rates represent vehicle trips. Consequently, the traffic projections do not directly account for increased proportions of transit use in San Luis Obispo Fringe in the future. Transit use is not anticipated to significantly affect the number of vehicle trips projected by the model.

The model forecasts the average daily traffic (ADT) for the road network. Based on the way that the calibration data was collected this will be the summer ADT and does not include holiday fluctuations.

MODEL CALIBRATION

The model was calibrated by comparing the traffic volumes from the stations in the model to real field volume counts for the corresponding field station.

As the General Plan Amendments and/or revisions to land use designations occur this model will be updated to reflect the specific circulation needs of the revision.

The target that was used to establish calibration in this model was either a difference in the volume of 1000 ADT or a percentage difference in volumes of 15.0%.

Roadway	Location	Actual Count (ADT)	Model Estimate (ADT)	ADT Difference	Percent Difference	Target Percentage
Highway 227	south of Tank Farm Road	15,000	16,434	-1,434	-9.6%	15.0%
Tank Farm Road	West of Santa Fe Road	16,500	16,164	336	2.0%	15.0%
Buckley Road	West of Highway 227	3,100	3,006	94	3.0%	15.0%

Table 3- Model Calibration Run

FUTURE LAND USE

The land use analysis is based on the concept of buildout of the San Luis Obispo Fringe Study area. Buildout refers to the development of all remaining vacant parcels at maximum allowable densities under the current planning and zoning codes, with limited redevelopment of existing developed properties. The model considers this level of development to be reached by buildout.

Chapter 4
Buildout Projections without Improvements

Using the model trip forecasts were prepared for current roadway conditions.

The initial buildout run assumed that the road network would remain exactly the same as it is today. This run identified the problem locations (both road segments and intersections). This information was then used to create a list of candidate projects for road impact fee funding. The model results for key locations and their Level of Service are shown in the following tables. Bold text indicates an unacceptable LOS.

Road			Buildout	Buildout
Name	From	To	Volumes (p.m.	LOS (p.m.
Highway 101	Higuera Street	Northern Boundary	5330	D
Highway 227	**Tank Farm**	**Southern Boundary**	**2410**	**E**
Tank Farm Road	**Long Street**	**Santa Fe Road**	**3400**	**F**
Tank Farm Road	**Santa Fe Road**	**Highway 227**	**3450**	**F**
Higuera Street	Los Osos Valley Road	Southern Boundary	1400	D
Buckley Road	Highway 227	Santa Fe Road	1100	D
Buckley Road	Santa Fe Road	Vachell Lane	1490	D
Santa Fe Road	Tank Farm Road	Buckley Road	585	C

Table 4- Buildout Road Segment Conditions

Intersection	BO LOS	Current Control	Signal Warrant
Highway 227 and Tank Farm Road	**F**	**Signal**	**-**
Highway 227 and Buckley Road	C	Signal	-
Tank Farm Road and Santa Fe Road	**F**	**Stop**	**Yes**
Buckley Road and Santa Fe Road	**F**	**Stop**	**Yes**
Buckley Road and Davenport Creek Road	**E**	**Stop**	**No**
Vachell Lane and Higuera Street	**F**	**Stop**	**Yes**

Table 5- Buildout Intersection Conditions

Chapter 5
Recommended Improvements

Listed in this chapter are capacity deficiencies that have been identified from the forecast model as well as recommended improvements. All of the projects listed in this chapter would be funded through the Road Impact Fee Program.

CIRCULATION STUDY UPDATE

In addition to covering the project costs to offset development impacts the Road Impact Fee also covers the cost of updating the Circulation Study and the model that supports it. These costs are approximately $10,000 annually with the 5th Year Updates costing $50,000. Over the course of the next thirty years (until 2034) these costs are expected to be $540,000.

CONTRIBUTE TO THE CITY OF SAN LUIS OBISPO ROAD IMPACT FEE

Currently the City of San Luis Obispo is collecting funds to develop several projects, most notably the extension of Prado Road to Broad Street with an interchange at US 101 and improvements to the 101/LOVR interchange. If these improvements are implemented the LOS for Road Segments and intersections are as follows.

Road			BO Volumes (p.m. peak)	BO LOS (p.m. peak)
Name	**From**	**To**		
Highway 101	Higuera Street	Northern Boundary	5330	D
Highway 227	**Tank Farm**	**Southern Boundary**	**3140**	**F**
Tank Farm Road	Long Street	Santa Fe Road	1930	E
Tank Farm Road	**Santa Fe Road**	**Highway 227**	**2670**	**F**
Higuera Street	Los Osos Valley Road	Southern Boundary	1400	D
Buckley Road	Highway 227	Santa Fe Road	950	D
Buckley Road	Santa Fe Road	Vachell Lane	950	D
Buckley Road	Vachell Lane	Higuera Street	700	C
Santa Fe Road	Tank Farm Road	Buckley Road	290	B
Vachell Lane	Buckley Road	Higuera Street	200	A

Table 6- Buildout Road Segment Conditions with the City's CIP

Intersection	BO LOS	Current Control	Signal Warrant
Highway 227 and Tank Farm Road	**F**	**Signal**	**-**
Highway 227 and Buckley Road	C	Signal	-
Tank Farm Road and Santa Fe Road	**F**	**Stop**	**Yes**
Buckley Road and Santa Fe Road	**F**	**Stop**	**Yes**
Buckley Road and Davenport Creek Road	**E**	**Stop**	**No**
Buckley Road and Higuera Street	D	Stop	Yes

Table 7- Buildout Intersection Conditions with the City's CIP

Although the tables above show the Buckley road extension and removal of the intersection of Vachell Lane and Higuera Street these projects are not currently funded by the City's CIP program.

STREET AND INTERSECTION UPGRADES

In addition to the improvements in the City of San Luis Obispo's development fee the following improvements are identified by this study.

Road Improvements:

Tank Farm Road between Santa Fe Road and Highway 227 will be operating at LOS F.

Recommended improvement: The model indicates that the development of a five lane cross section that will accommodate the projected traffic, this will cause the roadway to operate at LOS B.

Highway 227 between Tank Farm Road and Los Ranchos Road will be operating at LOS F.

Recommended Improvement: There is a corridor study that establishes that a 4 lane roadway will be needed from the City of San Luis Obispo to Price Canyon Road. The 4 lane roadway will operate at LOS B.

Intersection Improvements:

Tank Farm and Santa Fe Road will be operating at LOS F. With the inclusion of a signal and the lane configuration seen in Appendix B the intersection will operate at LOS C.

Highway 227 and Tank Farm Road will be operating at LOS F. With the addition of additional lanes as in Appendix B the intersection will operate at LOS D.

CONSTRUCTION OF NEW ROADWAYS

Buckley Road between Vachell Lane and Higuera Street. The addition of this section of Roadway will help alleviate problems with the intersection of Vachell and Higuera. Right now the intersection will operate at LOS F at buildout. Due to the proximity of other signalized intersections along Higuera Street this intersection could not be signalized. In addition it will have a detrimental impact on the traffic along Higuera Street if the current alignment is kept. The proposal is to extend Buckley Road and connect with Higuera south of the Los Osos Valley Road intersection.

Chapter 6
Other Projects

Please note that the projects listed in this chapter are not projects that correct any of the capacity problems that are forecasted and cannot be paid for by the Road Impact Fee Program.

Buckley Road from Thread Lane to Santa Fe Road, since this section of roadway serves a large number of access points and has relatively high volumes it is desirable to develop a two way left turn lane. This would assist in providing a safer roadway and minimize delays caused by turning motorists.

Vachell Lane from Buckley Road to South Higuera Street, since this section of roadway serves a large number of access points and has relatively high volumes it is desirable to develop a two way left turn lane. This would assist in providing a safer roadway and minimize delays caused by turning motorists.

Tank Farm Road at Santa Fe Road, residential and commercial development north of Broad Street as well as commercial and industrial development along Santa Fe and Buckley Roads have led to a significant increase in traffic volumes on Tank Farm Road. Of particular concern are the numbers of left turns from Tank Farm to Santa Fe.

Chapter 7
Alternative Transportation Modes

PEDESTRIAN TRANSPORTATION

Many streets within this area originated as unpaved minor roads without shoulders or sidewalks. In these cases pedestrians must use intermittent paths adjacent to the roadways. In some areas along Tank Farm Road and Santa Fe Road, sidewalks are provided. In addition, sidewalks are available along streets serving new development, in accordance with the applicable design standards.

BICYCLE TRANSPORTATION

The County has established a system to designate bikeways to serve bicycle commuters. There are four standard classes of bikeways. Each class is listed below with a brief description.

- **Class I Bikeway (Bike Path)** provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flow minimized. Class I bikeways are usually found near parks, along freeways, and other interurban roads.
- **Class II Bikeway (Bike Lane)** provides a striped lane for one-way bicycle travel on a street or highway. Class II bikeways are contiguous with the adjacent motor vehicle travel lanes. Minimum lane widths are four or five feet, depending on the presence of on-street parking or raised curbs.
- **Class III Bikeway (Bike Route)** provides for shared use with pedestrian or motor vehicle traffic. Bike route signs designate Class III bikeways. The signs are intended to alert motorists to the presence of bicyclists and to guide bicyclists to use streets determined to be suitable.
- **Class IV Bikeway (Bike Access)** is a roadway which has been identified as a satisfactory place to ride. Class IV bikeways often travel *to* or *through* residential neighborhoods, or run parallel to major thoroughfares in rural areas. As with Class III bikeways, Class IV bikeways have the characteristics of low traffic volumes and a low prevailing motor vehicle speed. However, Class IV bikeways have no specific improvements for bicycles. These routes may lack adequate shoulders and bicycles will have little or no separation from the automobile travel lane.

Local bicycle circulation is provided on County roads. The County Bikeways Plan (Updated September 2001) contains a map detailing the locations and types of bikeways planned for the San Luis Obispo Fringe area. This is included in Figure 3.

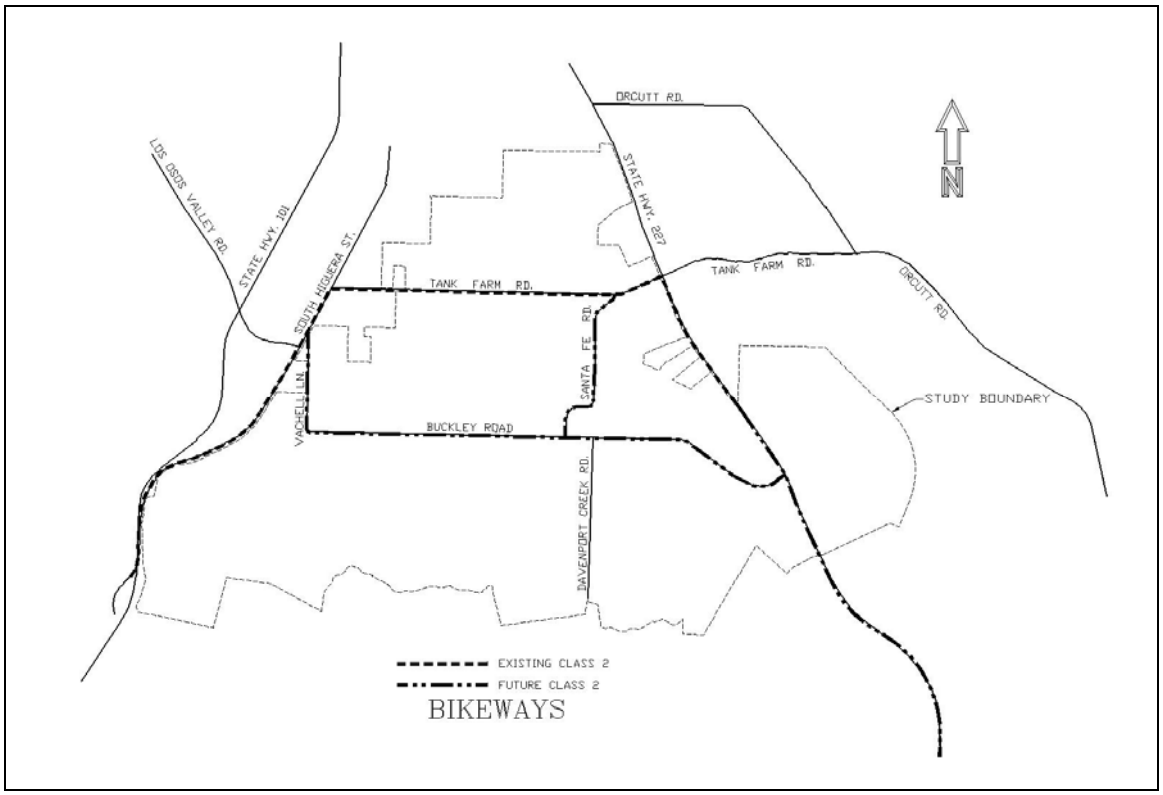

Figure 3-Local Bikeways

PUBLIC TRANSPORTATION

Public Transportation refers to a wide variety of transportation services available to the public. These include:

- Regional Transit: buses providing transportation to other communities within the region. This is done through Central Coast Area Transit (CCAT).
- Local Transit: local buses providing transportation to locations in the City of San Luis Obispo.

Private and employer-based transportation for commuting purposes include:

- Carpools: require a smaller capital outlay than vanpools. Most are privately formed and serve both local commutes and commutes to nearby communities. The regional Ridesharing Coordinator promotes carpooling by providing matchups, based on a questionnaire, of commuters with similar destinations and work schedules.

Chapter 8
COST ESTIMATES AND FUNDING MECHANISMS

This chapter presents the cost estimates developed for the recommended transportation improvements and discusses possible funding mechanisms.

COST ESTIMATES

A series of planning level cost estimates have been prepared for each project discussed in Chapters 5 and 6. The cost estimates are necessary to determine the funding required to implement the transportation improvements. A summary of the recommended projects, cost estimates, recommended funding sources, and expected project completion dates is shown in Appendix A.

All cost estimates include the cost of construction, right-of-way, design, administration, environmental considerations, and inspection. All costs for construction activity were determined from typical experiences in San Luis Obispo County. Construction costs include clearing and grubbing, paving, storm drains, lighting, signing, and striping. Roadway edge improvements like curb, gutter, and sidewalk are excluded since they are usually constructed at the time of adjacent development.

Appendix A summarizes the cost estimates for the recommended road impact fee funded improvements, which total approximately 6.3 million dollars. All costs are stated in 2004 dollars. The table also attributes each project to its most appropriate funding source, each of which are described below.

RIGHTS-OF-WAY

In order to provide maximum flexibility in responding to the transportation needs of the community as it builds out, all rights-of-way and offers to dedicate right-of-way shall be preserved. Any requests for abandonment or quiet title actions shall be evaluated by County staff on a case-by-case basis with input sought from the community; final action is the responsibility of the County Board of Supervisors.

FUNDING MECHANISMS

Implementation of the elements of the circulation plan for the San Luis Obispo Fringe will require sources of revenue dedicated to infrastructure investment. Local government has traditionally provided for public facilities, with the costs being financed by revenues derived from gasoline tax and state and federal funds. In the recent past, the traditional revenue sources have shrunk to inadequate levels through a combination of growth, aging capital facilities, State realignment of property tax revenues, construction cost inflation, increasing costs of environmental mitigation and competing needs for limited public dollars.

IMPACT FEES

The California Government Code (Sections 66001-66025) grants authority to local agencies to establish, increase, or impose fees as a condition of approval of a

development project within their jurisdictional boundaries. California courts require that such fees be reasonably related to the contributing development's impact on community facilities. Provided that the impact fees are used to finance construction of specific facilities, impact fees are not considered taxes and, therefore, do not require electorate approval. San Luis Obispo County adopted Ordinance No. 2379 in 1988 to provide for the collection of roadway impact fees. A fee program has been established for the study areas of the South County, Avila Beach, Los Osos, North Coast and Templeton. The impact fee is collected at the time of development and held in an account dedicated for road improvements within the area of benefit. Credits toward the fee are provided to landowners and developers who dedicate right-of-way or construct facilities listed on the Capital Improvement Projects Table (Appendix A).

For the San Luis Obispo Fringe, impact fees were established to fund the portion of road needs that are attributable to new development within the study area. These improvements were explicitly determined for the likely types of development that will occur in this area over the next 25 years. The following discussion highlights the considerations involved in establishing an equitable basis for impact fees in the San Luis Obispo Fringe area.

The next step in assigning eligible costs to the impact fee calculation is to estimate the portion of roadway improvement costs attributable to through traffic. These costs are not eligible for funding by impact fees. The roads in the San Luis Obispo Fringe that carry through traffic are:

- Tank Farm Road
- Highway 227
- Los Osos Valley Road
- Highway 101

Through trips are identified and subject to funding outside of the fee program. In addition, the regional component will not affect the costs on the signals since they will be needed either way.

IMPACT FEE AREAS

The San Luis Obispo Fringe Circulation Study includes a large transportation planning area. It is defined in the following figure.

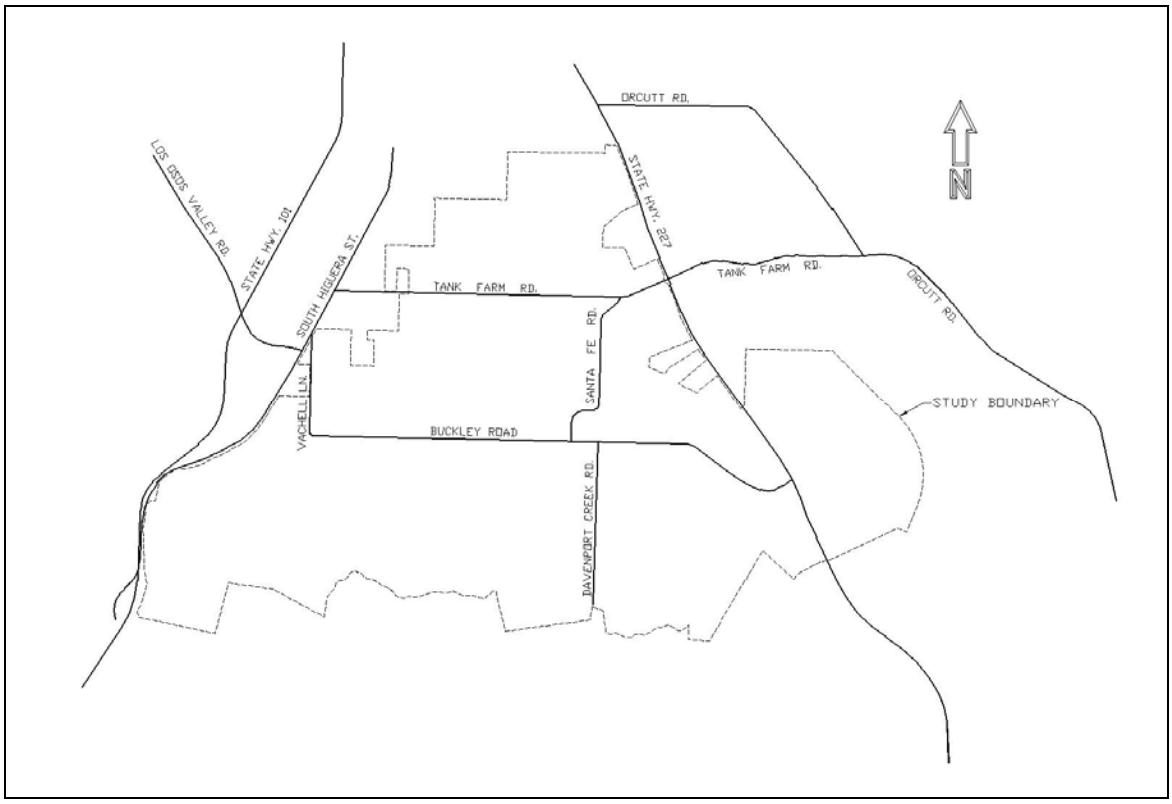

Figure 4 – Fee Area

DISTRIBUTION AMONG FUTURE TRAFFIC SOURCES

When the total private share of costs has been established, these costs must be further distributed among the various land uses that contribute to traffic growth. The calculated fees are based on the amount of traffic generated during the weekday afternoon (PM) peak hour by each type of new development. The amount of traffic is determined from the Institute of Transportation Engineer's (ITE) Trip Generation Manual, Seventh Edition.

In calculating the recommended fees, the eligible improvement costs are first divided by the total number of new trip ends. Then, the fees are adjusted so that the forecast new trips that travel between new land uses at both ends are not "double-charged." In accordance with the Board of Supervisors' policy as implemented in other areas of San Luis Obispo County, these trips are "charged" at the residential end.

The fees for any new development are calculated at the time of building permit issuance. Building permit applicant must show payment of City TIF (Traffic Impact Fee) prior of permit being issued. Table 8 shows the fees for the area.

	County TIF	Unit
Single Family Residence	$3,132	per Trip
Muilti Family Residence	$3,132	per Trip
Retail	$3,132	per Trip

Table 8 - Recommended Fee Schedule

Fees derived from new development are placed into an account to support the construction of projects included in this plan. This account is expected to grow at a rate corresponding to the rate of new development within the San Luis Obispo Fringe study area. In the future updates the fee will be adjusted by either new estimates or using the Caltrans Construction Index.

The fee is only for the unincorporated area. In the future, the County may enter into a agreement with the city for mitigation of circulation on interagency traffic. Currently the city fee is as follows.

City Traffic Impact Fees as of 5/15/04

	City TIF	Unit
Single Family Residence	$1,491	/DU
Muilti Family Residence	$1,323	/DU
Retail	$2,353	/KSF
Office	$2,992	/KSF
Service Comercial	$1,622	/KSF
Industrial	$863	/KSF

Table 9 - City Fee Schedule

Appendix A contains the San Luis Obispo County Road Improvement Projects for the San Luis Obispo Fringe.

OTHER FUNDING SOURCES

Overall, impact fees would contribute about two-thirds of the needed funding. The remaining funds could be derived from a number of traditional sources described below:

State Gas Tax Allocations

Revenues from the taxes collected on fuel purchases are distributed in part to cities and counties within the state. The allocation considers the number of vehicle registrations and mileage of maintained roadways within each jurisdiction. Gas tax revenues have been the traditional funding source for much of the development of San Luis Obispo County's road system. In recent years, revenues have declined in real terms due to the increasing fuel efficiency of the motor vehicle population and the State using a portion of these revenues to make up for State budget shortfalls. These revenues are primarily used for maintenance of the County road system, and this trend could be expected to continue.

General Fund Revenues

General fund revenues accrue to the County from the imposition of sales taxes and property taxes. These taxes fund a number of County services and are distributed through the budgetary process. However, the stability of these revenues is dependent on consistent allocation from the general fund.

Local Sales Taxes
State law provides for imposition of a voter-approved optional one half cent or one cent sales tax that can be dedicated exclusively to transportation improvements. This approach could be used to implement a program of county-wide transportation projects. Generally, high-cost and high-priority projects with county-wide benefits would be the focus of this program.

Assessment District
Another source of funding for public improvement projects is the creation of a special assessment district comprised of landowners most likely to directly benefit from the projects. California law provides for the issuance of bonds secured by the assessments and property liens. Costs for assessment districts are spread among properties on the basis of benefit. Typical factors used in measuring benefit include property frontage, acreage, or trip generation potential. Assessment district funding is often used to augment other sources of funding for projects. In the San Luis Obispo Fringe, portions of the costs of roadway corridor improvements could be financed with property assessments. In addition, property owners can voluntarily initiate assessment districts to fund improvements such as storm drainage, street lighting, and sidewalks.

State Bikeway Account
The State of California currently makes available about $7.2 million annually to local agencies statewide, for the construction of bikeway facilities. Interested local agencies may apply for up to $1.8 million per year for eligible projects.

Transportation Development Act
This funding source provides resources for the development of transit projects. Funding is derived from State sales tax revenues and is appropriated to the County and its incorporated cities on a population basis. Not all TDA funds are allocated to transit projects; a jurisdiction may fund road projects, bikeways and transit if no unmet transit service needs exist as determined annually by the San Luis Obispo Council of Governments. The transit percentage of TDA funds is variable, depending upon established unmet needs.

Implementation of the transportation improvements in the San Luis Obispo Fringe will likely rely on a combination of funding sources. Development impact fees, general county revenues, and assessment districts are reliable and stable sources

of financing for public projects. Advance planning would be required to secure federal funds or to implement optional county-wide sales taxes.

The additional on-going concern regarding transportation infrastructure investment is maintenance. Funding for roadway maintenance has also come from the same traditional State and Federal sources, but has relied more heavily than new construction on contributions from the County's general fund.

Priorities and Expected Construction Commencement

The project priorities and expected construction commencement are detailed in Appendix A.

APPENDIX A

Capital Improvement Projects Table